DOCUMENT RESUME

ED 134 076 PE 008 542

AUTHOR	Brigman, S. Leellen; Johnson, Judith J.
TITLE	Persistence of Educational Opportunity Program (Group) Students: A Study of Seven Entering Classes. Indiana Studies in Prediction No. 33.
INSTITUTION	Indiana Univ., Bloomington. Bureau of Educational Studies and Testing.
PUB DATE	76
NOTE	42p.
AVAILABLE FROM	Bureau of Educational Studies and Testing, Division of Research and Development, Indiana University, Bloomington, Indiana
EDRS PRICE	MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS	Academic Achievement; *Cohort Analysis; College Majors; College Students; *Disadvantaged Groups; *Dropouts; *Failure Factors; Higher Education; *School Holding Power; Specialization; State Universities; Student Characteristics; *Success Factors
IDENTIFIERS	GROUP program; *Indiana University Bloomington

ABSTRACT

Focus is on the educational opportunity (GROUP) program at Indiana University's Bloomington (I.U.B.) campus and on the persistence of students who enrolled in I.U.B. via this program. From 1969 to 1975, seven cohorts of GROUP students have entered the university to pursue a baccalaureate degree. Each cohort was studied to determine how long students were affiliated with I.U.B., what class rank they achieved, at what point(s) they dropped out, how many of those who dropped out were in academic difficulty, what academic fields they majored in, and how many achieved minimum requirements for graduation. The second part of this study identifies biographic and/or academic variables that are related to a GROUP student persisting in the university for a minimum of two years. (Author/LBH)

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ED134076

Persistence of Educational Opportunity Program (Group) Students: A Study of Seven Entering Classes

INDIANA STUDIES IN PREDICTION

NUMBER THIRTY-THREE

HE 008 542

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PERSISTENCE
OF
EDUCATIONAL OPPORTUNITY PROGRAM (GROUP) STUDENTS:
A STUDY OF SEVEN ENTERING CLASSES

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Indiana Studies in Prediction
Number Thirty-Three

Bureau of Educational Studies and Testing
Division of Research and Development
Indiana University
Bloomington, Indiana
November 1976

Abstract

This study focuses on the educational opportunity (GROUPS) program at Indiana University's Bloomington (I.U.B.) campus and on the persistence of students who enrolled in I.U.B. via this program. From 1969 to 1975, seven cohorts of GROUP students have entered the university to pursue a baccalaureate degree. Each cohort was studied to determine how long students were affiliated with I.U., what class rank they achieved, at what point(s) they dropped out, how many of those who dropped out were in academic difficulty, what academic fields they majored in, how many achieved minimum requirements for graduation, etc. The second part of this study focuses on identifying biographic and/or academic variables which are related to a GROUP student persisting in the University for a minimum of two years.

Acknowledgements

We must express our sincere appreciation to Deans Larry Campbell, Rozelle Boyd and Laverta Terry of the University Division for the ideas and information they contributed to the development of this study.

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Introduction

Since 1969 Indiana University at Bloomington (I.U.B.) has admitted each year through the GROUPs program two hundred to two hundred-fifty beginning freshmen. The GROUPs program is a special service arrangement that focuses on providing a university level educational opportunity for students who because of socio-cultural and/or economic obstacles would not normally seek admission to I.U.B. Since the majority of the students evidence academic deficiencies which would result in their being denied admission to I.U.B. through the traditional channels, special procedures have been set up which include a statewide system of recommenders from the local communities.

The purpose of the GROUPs program is to maximize the probability of success in higher education for these special students by providing a system of financial and academic support services. Academic services of the GROUPs program include a mandatory summer program, special academic advising and personal counseling, tutorial services, reading and study skills training, and other special course opportunities. The explicit goal for a GROUP student when he/she enters I.U.B. is the attainment of a baccalaureate degree.

The purpose of the present research is two-fold. There have been seven entering cohorts of GROUPs students between 1969 and 1975. Thus, the first problem is concerned with

the persistence in the University of the students who entered the GROUPs program.

The second problem in the present study involves an intensive examination of biographical and academic variables that may be predictors of a student's chance of continued persistence in the University. To examine this problem the study focused on the entering cohort of GROUP '74.

Thus, the present study examines two primary questions:

(1) What is the rate of persistence of students who entered I.U.B. as GROUPs students?

(2) What biographical variables and academic variables are related to the persistence of a GROUPs student?

Method

The present study was confined to the data that were available in the University's records to answer the questions of interest. A subsequent study of the GROUPs program which involves a follow-up survey of GROUPs students is being conducted by the Bureau of Educational Studies and Testing (BEST) for subsequent publication.

Subjects

In the seven years, 1969 through 1975, fourteen hundred-eighty (1480) students have been admitted to I.U.B. via the GROUPs program. Forty-six percent of those who entered were males and fifty-four percent were females (males = 680, females = 800). The number of students in each cohort is given in Table 1 (Page 8).

Variables

For the 1480 GROUP students, information was obtained on the following variables from their university records: (1) entering year in the GROUPs program, (2) sex, (3) the last semester they attended any of the I.U. campuses (LSA), (4) the I.U. campus they last attended, (5) the class rank the last semester they attended, (6) their last declared academic major, (7) the cumulative hours (CUM-HRS) of credit obtained, and (8) the cumulative grade point average (CUM-GPA) the last semester they attended. These data were specifically employed in the part of this study which focused on the persistence of each GROUPs cohort.

The intensive part of this study focused on the relationship of biographic and academic variables to persistence. For this phase, only the students in GROUP '74 were used. The additional data available on these students through the GROUPs program office and the university admissions files were: (1) high school size, (2) high school rank, (3) Scholastic Aptitude Test Verbal (SAT-V) and Mathematics (SAT-M) scores, (4) father's educational level, (5) mother's educational level, (6) marital status of parents, (7) number of siblings, (8) whether or not they were the oldest child, (9) number of high school English courses with a minimum grade of C, and (10) number of high school mathematics courses with a minimum grade of C.

Definitions

The measure of persistence used in this study was the number of semesters between the time a student began in the GROUPs program at I.U.B. and the last semester he/she attended any Indiana University (I.U.) campus. The use of this measure of persistence assumes that a student would be continuously enrolled and would not "stop out" for several semesters then return to I.U. to continue his/her program of study.

As part of the study of persistence the question arises as to the number of students who had obtained their goal of a baccalaureate degree at I.U. For this question, minimum graduation requirements were obtained if a student had (1) a class rank of senior or graduate student their last semester in attendance (LSA), (2) 120 or more CUM-HRS of semester course work and (3) a minimum CUM-GPA of 2.00.

For both parts of the present study students were divided into three groups according to their LSA, class rank, and CUM-GPA. First, those students who were freshmen and had a CUM-GPA of 1.80 or less and those who were upperclassmen with a CUM-GPA of 1.90 or less were classified as academic dropouts (ADs). Whether these students were technically suspended or not they were in academic difficulty the last semester they attended I.U. The second group of students no longer enrolled at I.U. were those who were not in academic difficulty (NADs) the last semester they enrolled at I.U. Specifically, NADs consisted of freshmen with a CUM-GPA of 1.81 or higher or an upperclassman with a CUM-GPA of 1.91 or higher. This category

would include those who had graduated from I.U. These first two groups were comprised of students who are no longer enrolled in I.U. The last group of students consisted of those who are enrolled at I.U. in the Fall semester 1976, i.e., persisters (PERs). This group would include persisters who were in academic difficulty (PER-ADs) and persisters who were not in academic difficulty (PER-NADs).

Analyses

The problem concerning the persistence of the seven GROUP cohorts was examined with the use of percentage data. Three graphic representations of persistence data provide a medium for examining persistence rates of the seven GROUP cohorts, three GROUP cohorts and the corresponding entering freshmen cohorts, and two GROUP cohorts and the corresponding minority entering freshmen.

To examine the relationship of biographic and academic variables to persistence of the GROUP '74, the students were divided into three groups: (1) ADs, (2) NADs, (3) PERs. To test for significant differences in the three groups chi square tests and analyses of variance (ANOVA) were performed on the biographic and academic variables.

Results

The results of this study are presented in two parts. First, the results of the analysis of the data which deal with the question of the persistence of the seven entering

GROUP cohorts is presented. The results of the examination of the relationship of biographic variables and academic variables to persistence are presented in the latter portion on this section.

Persistence of Seven GROUP Cohorts

Table 1 presents the number and percentage of each GROUP cohort which were continuing their affiliation with I.U. for each academic session. The following abbreviations were employed in Table 1, Table 2 and Figures 1, 2, and 3:

Sm = Summer orientation

Fl = Fall semester of the first year

Sl = Spring semester of the first year

Sm1a = First summer session of the first year

Sm1b = Second summer session of the first year

F2 = Fall semester of the second year

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.

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etc.

A graphic representation provides a clearer picture of the persistence of each GROUP cohort. Figure 1 is a graph of the data presented in Table 1.

A basic question arises as to how the persistence of GROUP students compares to their peers who enrolled at I.U.B. through the traditional admissions channel. From the BEST monograph, To Persist or Not to Persist: A Continuing Question

(1976), the persistence rates for entering fall freshmen cohorts for 1971, 1973, and 1974 were available. Also racial composition data were available for the 1973 and 1974 fall freshmen cohorts. By omitting foreign students and Caucasian native born students, persistence rates of entering minority students were obtained for the 1973 and 1974 fall freshmen cohorts. Table 2 presents the numbers and percentages of persistence of three GROUP cohorts, the corresponding entering fall freshmen cohorts and the minority students included in the 1973 and 1974 fall freshmen cohorts. Again, graphic presentations of the persistence data are found in Figures 2 and 3.

Next, each GROUP cohort was divided according to the student's enrollment and academic status. The subgroups consisted of the following categories: (1) dropouts in academic difficulty, ADs, (2) dropouts not in academic difficulty, NADs, (3) persisters as of Fall semester 1976, PERs. Table 3 presents the numbers and percentages of GROUP students in each of the three categories by entering cohort. An elaboration of these data identifying the ADs, NADs and PERs according to their class rank the last semester they were enrolled at I.U. is included in the Appendix Table 1.

A student who continues his/her enrollment at I.U. must declare an academic major at some point in his/her career. The present study classified the five hundred plus majors offered at I.U. into five academic areas: (1) humanities,

Tabl

Numbers and Percentages o

Persisting in Indiana Univ

GROUP		Sm	F 1	S 1	Sm 1a	Sm 1b	F 2	S 2	Sm 2a	Sm 2b	F 3	S 3	Sm 3a	Sm 3b
'69	%	100	95.3	91.7	76.7	76.7	74.6	62.2	58.0	58.0	57.0	56.5	52.8	52.3
	n	193	184	177	148	148	144	120	112	112	110	109	102	101
'70	%	100	97.0	91.5	81.0	81.0	80.5	72.0	66.0	65.0	63.5	59.0	54.0	54.0
	n	200	194	183	162	162	161	144	132	130	127	118	108	108
'71	%	100	96.4	91.7	80.8	79.8	78.2	73.6	64.2	63.2	61.7	55.4	49.7	48.2
	n	193	186	177	156	154	151	142	124	122	119	107	96	93
'72	%	100	94.9	88.8	73.5	73.5	73.0	66.8	54.1	53.6	53.1	49.0	41.8	40.8
	n	196	186	174	144	144	143	131	106	105	104	96	82	80
'73	%	100	99.1	92.4	72.5	72.5	71.6	67.3	59.2	58.3	57.8	55.5	42.2	40.8
	n	211	209	195	153	153	151	142	125	123	122	117	89	86
'74	%	100	97.9	93.1	69.5	67.4	66.5	54.9	38.2	37.8	36.9			
	n	234	228	217	162	157	155	128	89	88	86			
'75	%	100	97.3	88.6	68.6	66.7	66.3							
	n	255	248	226	175	170	169							
Total[a]	%	100	96.9	91.1	74.3	73.5	72.5	65.8	56.1	55.5	54.5	55.1	48.0	47.1
	n	1481	1435	1349	1100	1088	1074	807	688	680	668	547	477	468

[a]Total percentages are obtained by subtracting the number in each cohort from

the Seven GROUP Cohorts

sity by Academic Session

F 4	S 4	Sm 4a	Sm 4b	F 5	S 5	Sm 5a	Sm 5b	F 6	S 6	Sm 6a	Sm 6b	F 7	S 7
51.8	49.7	39.4	38.3	36.8	28.5	24.4	24.4	21.2	17.1	14.5	14.5	13.5	11.4
100	96	76	74	71	55	47	47	41	33	28	28	26	22
52.0	49.5	39.0	37.0	32.0	28.5	23.0	21.5	20.0	16.0	9.0	9.0	6.5	
104	99	78	74	64	57	46	43	40	32	18	18	13	
46.6	43.5	37.3	34.2	31.1	26.4	18.7	15.0	13.5					
90	84	72	66	60	51	36	29	26					
40.3	35.7	22.4	19.4	16.8									
79	70	44	38	33									
38.9													
82													
45.8	44.6	34.5	32.2	29.2	27.8	22.0	20.3	18.3	16.5	11.7	11.7	9.9	
455	349	270	252	228	163	129	119	107	65	46	46	39	

481 as the cohort terminates in a row.

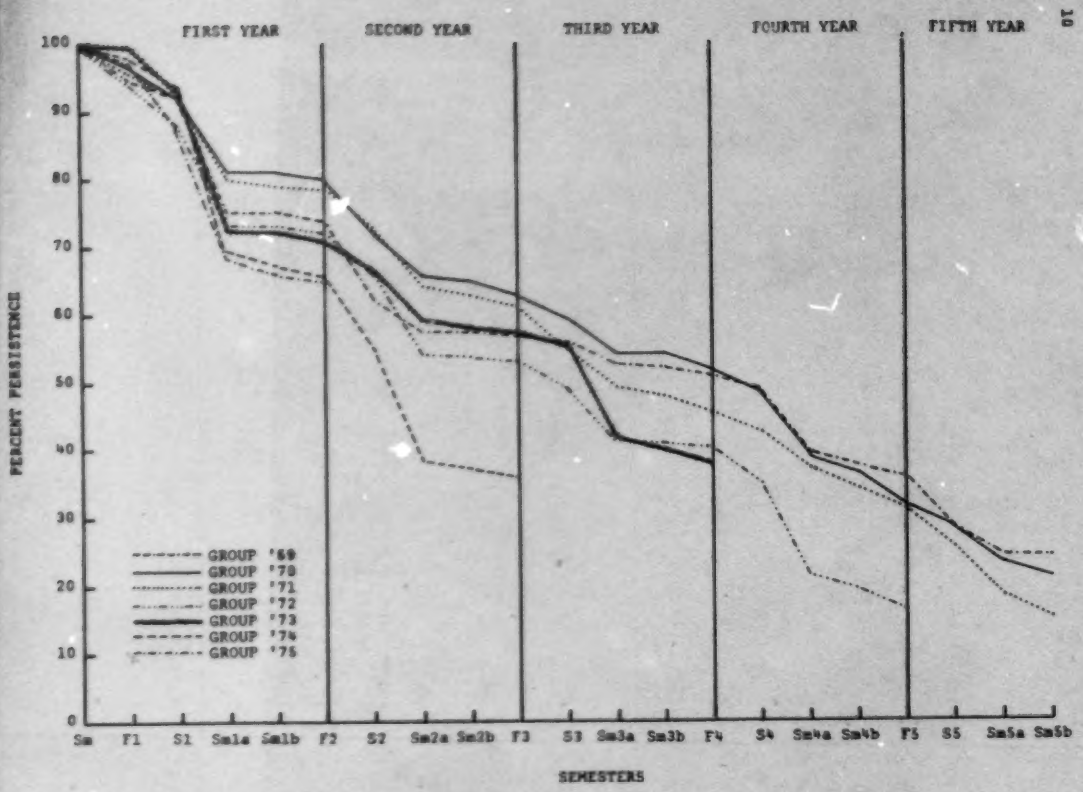

Figure 1. Percentages of persistence of each entering cohort of GROUP students.

Table 2

Numbers and Percentages of Persistence for Three GROUP Cohorts, and the Corresponding Fall Semesters Entering Minority Freshmen and Total Entering Freshmen Cohorts[a]

Entering Cohort	GROUP		Sm	F1	S1	F2	S2	F3	S3	F4	S4
1971[b]	GROUP '71	%	100.0	96.4	91.7	78.2	73.6	61.7	55.4	46.6	43.5
		n	193	186	177	151	142	119	107	90	84
	All Freshmen	%		100.0	95.1	85.3	81.6	74.5	72.2	66.4	62.2
		n		4629	4402	3947	3777	3450	3343	3073	2878
1973	GROUP '73	%	100.0	99.1	92.4	71.6	67.3	57.8	55.5		
		n	211	209	195	151	142	122	117		
	Minority Freshmen	%		100.0	98.5	85.6	80.5	71.8	67.2		
		n		195	192	167	157	140	131		
	All Freshmen	%		100.0	94.5	84.3	80.9	74.0	69.6		
		n		4513	4263	3803	3651	3341	3142		
1974	GROUP '74	%	100.0	97.9	93.1	66.5	54.9				
		n	233	228	217	155	128				
	Minority Freshmen	%		100.0	95.1	84.8	75.5				
		n		204	194	173	154				
	All Freshmen	%		100.0	94.5	84.0	77.2				
		n		4660	4404	3913	3599				

[a]Minority student and total group data obtained from Bureau of Educational Studies and Testing Monograph No. 32.

[b]Racial data not available on entering freshmen in Fall 1971.

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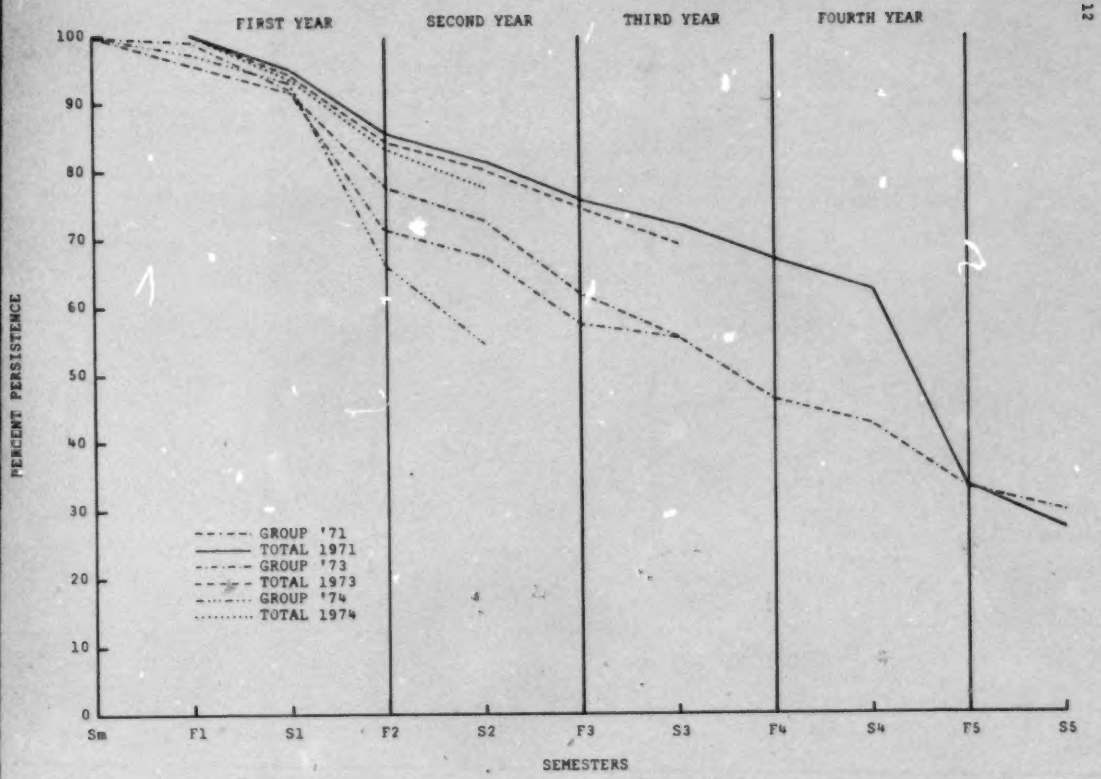

Figure 2. Percentages of persistence of GROUP '71, GROUP '73 and GROUP '74 and the 1971, 1973 and 1974 entering fall freshmen cohorts.

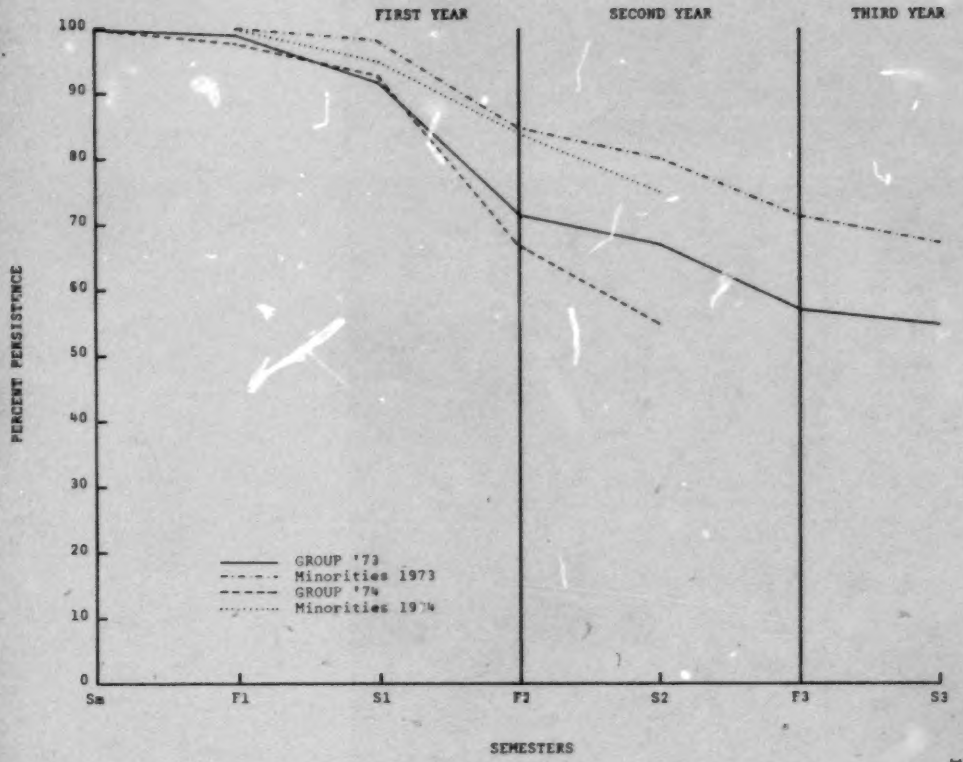

Figure 3. Percentages of persistence of GROUP '73, GROUP '74 and the minority freshmen who enrolled in the fall semesters 1973 and 1974.

Table 3

Numbers and Percentages of GROUP Cohorts

According to Their Enrollment Status as of Fall 1976[a]

GROUP	Not Enrolled			Enrolled		Total
	AD	NAD Freshmen Sophomores Juniors	NAD Seniors Graduates	PER AD	PER NAD	
'69	98 (51.0)	27 (14.1)	58 (30.2)	1 (0.5)	8 (4.2)	192
'70	89 (44.5)	36 (18.0)	62 (31.0)	1 (0.5)	12 (6.0)	200
'71	71 (36.8)	49 (25.4)	47 (24.4)	5 (2.6)	21 (10.9)	193
'72	79 (40.3)	55 (28.1)	29 (14.8)	7 (3.6)	26 (13.3)	196
'73	81 (38.4)	44 (20.9)	4 (1.9)	11 (5.2)	71 (33.6)	211
'74	108 (46.4)	39 (16.7)	--	13 (5.6)	73 (31.3)	233
'75	72 (28.2)	14 (5.5)	--	38 (14.9)	131 (51.4)	255
Sub-Total '69-'72	337 (43.1)	167 (21.4)	196 (25.1)	14 (1.8)	67 (8.6)	781

[a]Numbers in parentheses are the percentages of the entering cohort in each category.

(2) biological sciences, (3) physical sciences, (4) social sciences and (5) applied sciences. For the 1969-1974 GROUP cohorts, the numbers and percentages of each cohort who had declared majors in the five academic areas are presented in Table 4.

For a basis of comparison, the numbers and percentages of the Fall 1973 entering freshmen cohort who had declared majors in each of the five academic areas were obtained. Of the 4513 freshmen who entered I.U.B. in Fall 1973, fifty-five percent (2484) had declared a major by spring semester of their third year (Spring 1976). Twenty-four percent (23.7%) had declared majors in the humanities, 8.6 percent had declared in the biological sciences, 6.6 percent in the physical sciences, 8.4 percent in the social sciences, and 42.2 percent in the applied sciences.

Using the criteria defined as minimum requirements for graduation, the GROUP '69 through GROUP '73 were analyzed to determine the numbers and percentages of each entering GROUP cohort which had met minimum requirements for graduation by Fall semester 1976. These data are presented in Table 5.

Collating the information in Tables 4 and 5, we were able to examine the ratio of the students who had a major declared in an academic area to those who had achieved minimum graduation requirements. Table 6 contains this information.

Table 4

Numbers and Percentages of Each GROUP Cohort
who had Declared Majors in Five Academic Areas
as of Spring 1976

GROUP	Academic Areas					Total
	Humanities	Biological Sciences	Physical Sciences	Social Sciences	Applied Sciences	
'69	15 (13.6)[a]	3 (2.7)	3 (2.7)	17 (15.5)	72 (65.5)	110 {57.3}[b]
'70	8 (7.8)	3 (2.9)	1 (1.0)	23 (22.5)	67 (65.7)	102 {51.0}
'71	8 (8.4)	3 (3.2)	0 (0.0)	22 (23.2)	62 (65.3)	95 {49.2}
'72	6 (6.6)	6 (6.6)	0 (0.0)	17 (18.7)	62 (68.1)	91 {46.4}
'73	18 (16.8)	3 (2.8)	4 (3.7)	12 (11.2)	70 (65.4)	107 {50.7}
'74	10 (13.0)	7 (9.1)	4 (5.2)	8 (10.4)	48 (62.3)	77 {33.0}
Total	65 (11.1)	25 (4.3)	12 (2.1)	99 (17.0)	381 (65.5)	582

[a]Numbers in parentheses indicate percentage of those who had declared a major.

[b]Numbers in brackets indicate percentage of entering group who had declared a major.

Table 5

Numbers and Percentages of GROUP Students who had Minimum Requirements for Graduation as of Fall Semester 1976[a]

GROUP	Number Entered	Number Graduated	Percent Graduated
'69	192	48	25.0
'70	200	41	20.7
'71	193	45	23.4
'72	196	29	14.9
'73	211	5	2.4

[a]Minimum requirements for graduation were:
(1) Class rank of senior or graduate student the last semester attended,
(2) 120 or more cumulative hours, and
(3) Cumulative GPA of 2.0 or higher.

Table 6

Numbers of GROUP Students who had Declared Majors as of Spring 1976,
Numbers of Students with Declared Majors who had Minimum Requirements for Graduation as of Fall 1976,
and Percentages of Students who meet the Requirements in each Academic Area

GROUP	Academic Areas																	
	Humanities			Biological Sciences			Physical Sciences			Social Sciences			Applied Sciences			Total		
	D	G	%[a]	D	G	%	D	G	%	D	G	%	D	G	%	D	G	%
'69	15	9	60.0	3	1	33.3	3	0	0.0	17	4	23.5	72	31	43.1	110	45	40.0
'70	8	2	25.0	3	1	33.3	1	1	100.0	23	8	34.8	67	24	35.8	102	36	35.3
'71	8	4	50.0	3	2	66.7	-	-	---	22	7	31.8	62	28	45.2	95	41	43.2
'72	6	4	66.7	6	1	16.7	-	-	---	17	3	17.6	62	18	29.0	91	26	28.6
'73[b]	18	1	---	3	0	---	4	0	---	12	1	---	70	3	---	107	5	---

[a] D = Number who declared a major in the academic area.
G = Number who had minimum requirements for graduation.
% = Percentage of students who had minimum graduation requirements of those who had declared majors.

[b] GROUP '73 have been enrolled for only three years, therefore % was not computed.

Relationship of Academic & Biographical Variables to Persistence

This part of the present study focused on GROUP '74 and a number of additional measures which were available on this group. At the time of the present study GROUP '74 had had the opportunity to be enrolled at I.U. for two years. GROUP '74 students were divided into three categories according to their enrollment status and academic standing as of Fall 1976: ADs, NADs, and PERs. Of the students who comprised this cohort, 108 (46.4%) were ADs, 39 (16.7%) were NADs and 86 (36.9%) were PERs at the beginning of their third academic year at I.U.

To determine if the three groups, ADs, NADs, and PERs were significantly different on three admissions variables, analysis of variances (ANOVAs) were performed on SAT-V, SAT-M and relative high school rank (RELRANK - high school rank divided by high school size and multiplied by 100). Analysis of variance (ANOVA) is a statistical test which determines if the average score of any of the three groups, ADs, NADs, or PERs, is significantly different. The ANOVAs on SAT-V, SAT-M and RELRANK were all significant at the .05 level. This indicates that at least one of the group averages for each measure was significantly different from the averages of the other groups. The obvious question is which of the three group averages is significantly different. Table 7 provides summary data which allows one to determine which group mean or means are significant.

Table 7

Summary of ANOVAs on SAT-Verbal Scores, SAT-Mathematics Scores and Relative High School Ranks for the Academic Dropouts, Non-Academic Dropouts, and Persisters

Group	Number	Mean	95 Percent Confidence Interval[a] Lowest	to	Highest
		SAT-Verbal			
ADs	71	301	288	to	314
NADs	36	371	341	to	401
PERs	62	346	329	to	363
		SAT-Mathematics			
ADs	71	335	319	to	351
NADs	36	397	366	to	428
PERs	62	365	346	to	384
		Relative High School Rank			
ADs	87	54	49	to	58
NADs	34	39	31	to	48
PERs	66	36	30	to	42

[a] If the 'lowest' and 'highest' values do not overlap for two groups, the groups can be considered significantly different on that measure.

Several biographic measures were available on the majority of GROUP '74 students. The next phase of the study was to focus on whether or not the three groups, ADs, NADs, and PERs differed significantly on any of the biographic measures. Chi square tests were performed on the following: (1) the number of high school English courses completed with a minimum grade of C, (2) the number of high school mathematics courses completed with a minimum grade of C, (3) mother's educational level, (4) father's educational level, (5) whether the GROUP student was the oldest child, (6) number of siblings, (7) marital status of parents, (8) sex, and (9) size of high school. There was no significant difference in ADs, NADs and PERs on any biographic measure with the exception of the number of high school English courses completed with a minimum grade of C. Table 8 presents the results of this chi square test.

From Table 8 we find that 49.3 percent of the ADs had two or less courses in English with a grade of C, while only 31.3 percent of the NADs and 31.2 percent of the PERs had two or less courses in English with a minimum grade of C. None of the other biographical measures were significantly related to a student's status at the beginning of the third year and therefore none of the other chi square tables are presented in this monograph.

Table 8

Number of High School English Courses of GROUP '74

According to Their Academic Status in Fall 1976

GROUP	Number of H.S. English Courses				Total
	1	2	3	4	
ADs	13 (18.3)	22 (31.0)	26 (36.6)	10 (14.1)	71
NADs	2 (6.3)	8 (25.0)	20 (62.5)	2 (6.3)	32
Persisters	2 (3.1)	18 (28.1)	37 (57.8)	7 (10.9)	64

Chi Square = 14.07 df = 6 p = .03

[a]Numbers in parentheses indicates the percent of the corresponding group.

Discussion and Summary

The present study focused on the persistence of seven GROUP cohorts and the relationship of several biographic and academic variables to persistence of GROUP students. The data presented in the previous section provide a basis for several observations regarding the GROUPs students.

Persistence of the Seven GROUP Cohorts

Examining the data represented in Figure 1, several observations can be made. There is a high degree of persistence during the first three semesters at I.U. across all GROUP cohorts; an average of 91 percent of the students are continuing their affiliation with I.U. for the first three semesters, Sm, Fl, and Sl. There is a major decline in persistence near the end of the first year; an average of 18.6 percent of an entering cohort drop out between the end of the Spring semester of the first year (Sl) and the beginning of Fall semester of the second year (F2). The largest drop in persistence during a regular academic year, i.e., between Fall and Spring semesters, is observed during the second year (an average of 6.7 percent dropout). Finally, there is a downward trend in the rates of persistence across the years. For example, the persistence rates for the fall semester of the second year (F2) have consistently declined since GROUP '70. This same pattern is observed for the fall of the of the third year (F3) with the exception of GROUP '73 and for the fall of the fourth year (F4). The specific per-

centages can be found in Table 1. Overall, we can observe that of those cohorts who have had the opportunity to be enrolled, 91 percent have continued their affiliation with I.U. for a minimum of one year, 66 percent have continued their affiliation with I.U. for a minimum of two years, 55 percent have continued their affiliation with I.U. for a minimum of three years, and 45 percent have continued affiliation for a minimum of four years.

Figure 2 provides a comparison of the persistence of three GROUP cohorts with the corresponding fall semester entering freshmen cohorts. It is notable that all groups in this figure exhibit a high degree of persistence through spring semester of the first year. Also, the entering freshmen cohorts as well as the GROUP cohorts show a decline in the rate of persistence from 1971, to 1973 and 1974. The GROUP cohorts have a much greater loss of students than the corresponding freshmen cohorts at the critical time between the end of their first spring semester and the beginning of the second fall semester.

Probably the most significant observation reflected in the data from Figure 2 is that from the fall of the second year (F2) on through the spring of the fourth year (S4), the semester by semester decline in the persistence of the GROUP cohorts is only slightly less than the semester by semester decline in persistence of the corresponding freshmen cohort. The largest difference in the semester by semester rates of

persistence is less than five percentage points between F2 and S2 in 1974. Actually GROUP '73 had a slightly higher rate of persistence than their freshmen cohort between F3 and S3. Specific rates of persistence (or attrition rates) may be obtained by subtraction of data provided in Table 2.

Several studies have been criticized for comparing persistence of educational opportunity students to the predominantly white freshmen. Thus, Figure 3 provides a comparison of the GROUP cohorts to minority students included in the fall freshmen cohort. The minority freshmen students for Fall 1973 and Fall 1974 was composed of 74 percent Afro-American, 14 percent Oriental-American, 8 percent Mexican-Spanish surnamed American and 4 percent American Indian. The minority freshmen comprised approximately 4 percent of the total entering fall freshmen cohort.

Comparing Figure 2 and Figure 3, it is obvious that the patterns of persistence are very similar. This is more obvious when we compare the persistence rates of minority students to their corresponding freshmen cohort data in Table 2. In some cases minority students had a slightly higher persistence than the total group. One point should be made in regard to the data in Figure 3. The minority students are probably different from the GROUP students in two ways; the minority students are probably not economically disadvantaged and had sufficient test scores and high school achievement to be admitted to I.U.B. through the traditional

admissions channels. It would possibly be more appropriate to compare GROUP students with regular students from the same socio-economic background. However, socio-economic measures on the freshmen cohort were not available.

Examining the data presented in Table 3 we have a more detailed picture of what has happened to GROUP students. Historically we observe that for the GROUP '69, GROUP '70, GROUP '71 and GROUP '72 an average of 43 percent of the entering cohort were in academic difficulty the last semester they attended I.U. Twenty-one percent of those no longer enrolled at I.U. were freshmen, sophomores or juniors when they left and were not in academic difficulty. These NAD students would comprise the GROUP students who would have potentially transferred to another institution. Twenty-five percent of the entering cohort were seniors or graduate students when they last attended the university and were not considered to be in academic difficulty; these students would represent those who probably achieved their goal of a baccalaureate degree at I.U. For GROUP '73, GROUP '74 and GROUP '75 we find that an average of 48 percent enrolled at I.U. for Fall 1976. Of these entering cohorts approximately 9 percent are persisting but in academic difficulty.

To examine more thoroughly the students who are no longer persisting and were in academic difficulty their last semester at I.U., the reader is referred to Appendix A. All 'special' students were or are presently in academic difficulty. Most academic dropouts (ADs) and most nonacademic dropouts (NADs)

were freshmen or sophomores at I.U. when they last attended the University. Unlike the NADs, there has been an increasing number of freshmen ADs since GROUP '71. Relating this to the persistence rates in Figure 1, we find that the decline in the rate of persistence over the years may be for a large part attributed to freshmen who leave the University in academic difficulty. It is also interesting to note that 54 GROUP students from the first four GROUP cohorts are presently or have in the past attended graduate school at I.U. (in the Appendix A).

Table 4 provides information on the proportion of GROUP students who major in five academic areas. It is obvious that most GROUP students major in the applied sciences (65%) while very few GROUP students have majored in the biological and physical sciences. In comparing GROUP students to the entering freshmen in Fall 1974, we find that more GROUP students major in the applied and social sciences than the regular students while fewer GROUP students major in the humanities, biological sciences and physical sciences than their corresponding freshmen cohort. In addition the proportion declaring in each of the five academic areas has remained relatively stable over six GROUP cohorts.

The next two tables of results, Tables 5 and 6, deal with the chances of a GROUP student achieving the goal of a baccalaureate degree at I.U. In Table 5 we find that of those GROUP cohorts who have had five or more years since they enrolled at I.U.B., approximately 23 percent have met

the minimum requirements for graduation at I.U. by Fall 1976. This figure does not give any indication as to whether students who left I.U. obtained a degree from another institution. In comparison, Tinto (1974) found that approximately 50% of students who enroll in four year colleges graduate with a baccalaureate degree.

In further examination of the data in Table 6, we find that of the first four entering GROUP cohorts, an average of 51 percent of those majoring in the humanities had by Fall 1976 met the minimum requirements for graduation, 38 percent in the applied sciences, 33 percent in the biological sciences, 28 percent in the social sciences and 25 percent in the physical sciences.

Certainly, the present study does not answer completely all questions regarding persistence of GROUP students at I.U. or what has happened to these students while they were affiliated with I.U. Further information is needed from the students themselves, and this is being obtained via a subsequent study that is in process by the Bureau of Educational Studies and Testing.

Relationship of Academic and Biographic Measures to Persistence of GROUP Students

The results of this part of the study provide information that may be useful in identifying potential GROUP students who would persist at I.U. for a minimum of two years or those who would not be forced to leave the University because of inability to maintain the required academic standards.

In examining the admission criteria, we found that ADs were significantly lower than NADs or PERs on SAT-V and relative high school rank. An entering GROUP student with a SAT-V score less than 315 or a relative high school rank in the bottom 50 percent of his/her graduating class would be very likely to have left I.U. in academic difficulty before the beginning of the third year.

The results of the ANOVA for SAT-M were not as decisive. NADs had the highest average SAT-M and were significantly different from ADs on this measure. However ADs and PERs were not significantly different on SAT-M.

For the tests of the relationship of biographic measures to academic status at the end of two years, only the number of high school English courses with a minimum grade of C was significantly related to a GROUP student's academic status at the end of two years. From these data, it is indicated that NADs and PERs had more English courses with a minimum grade of C than the ADs.

It is important to note that none of the other biographic measures were significantly related to persistence. This indicates that these measures should not be considered as relevant to a GROUP student's chance of success when identifying potential students for the program.

Conclusions

In this present study we have been focusing on the persistence patterns of GROUP students cohorts. Certainly the implied area of concern is with the two interactive sides of this phenomenon, i.e., the two-sided coin of persistence/attrition. The critical problem facing many universities is that after extensive and competitive programs to recruit new students, the attrition rates are subverting initial recruiting efforts.

The primary purpose of economic opportunity programs, i.e., GROUPs program at I.U.B., is to make higher education accessible to students who in the past have for one reason or another been denied access to these programs. Though high attrition rates are a problem in the general student population, attrition rates among these specially recruited minority populations have become of intense concern.

The present study has found that for the seven GROUP cohorts, persistence during the first year is comparable to that of other minority students and the fall entering freshmen. Critical points where attrition occurs are at the end of the first year and between Fall and Spring semesters of the second year. Over the seven GROUP cohorts we have observed a pattern of higher attrition rates for each entering cohort since GROUP '70. This becomes even more noticeable in the entering GROUP cohorts since 1973. A number of reasons may be identified as possible correlates for these increases in attrition rates. These reasons may be classified into two categories: (1) reasons

relating to higher attrition that are external to the University and (2) reasons for higher attrition that are internal in nature.

First, external causes for higher attrition since 1970 may be related to the increase in unemployment especially among inner-city and minority families making it more difficult for the student's family to make the necessary financial contribution to the student's education. In the same context, the increased inflation in the seventies has placed heavier financial burdens on the families. The effect of the draft on encouraging students to persist in college is no longer of concern to the male student. Therefore the fear of being drafted does not come into play when one is considering dropping out of college. These external reasons for the increase in attrition rates since 1970 are only hypothesized since we have no validating information in the present study.

The internal correlates for increasing rates of attrition are partially validated in this study and will be more thoroughly examined in a future study by the Bureau of Educational Studies and Testing. However, in the present study, we found that the number of students who are dropping out in their first two years at I.U. are primarily students who have not met the academic standards required for continued enrollment. From data in Appendix A we find that the number of freshmen and sophomore students in each GROUP cohort who were in academic difficulty (ADs)

the last semester they attended I.U. has increased since 1971, while the number of freshmen and sophomore students who were not in academic difficulty (NADs) the last semester they attended I.U. have not shown a comparable increase over the years. Two possible reasons for the higher numbers of ADs may be (1) a tightening of grading procedures as a result of the concern over grade inflation and (2) the admission of more high risk students through the GROUPs program with its expansion of the program from 200 to 250 students per year.

The second part of the present study has focused on variables which relate to persistence of the GROUP students. The primary difference between ADs and their peers is in the language skills area. Academic dropouts (ADs) are significantly lower than non-academic dropouts (NADs) and persisters on the Scholastic Aptitude Test-Verbal (SAT-V) and on relative high school rank. Again we find that ADs have significantly fewer high school English courses with a minimum grade of C than the NADs or persisters.

Combining the fact that the increasing rate of attrition can be primarily attributed to an increase in the number of academic dropouts and that academic dropouts differ from their peers in the GROUPs program in the development of their language skills, the University is faced with a true dilemma. One alternative is to exclude the high risk GROUPs students on the basis of their SAT-V and relative high school rank. However, this approach to reducing attrition rates is an

initial phase in defeating the purpose of this type of program to provide these nontraditional students access to higher education.

Two alternatives to excluding these high risk students are possible avenues of action on the part of the University. At present students for the GROUP program are identified in the fall of their senior year in high school. If the students were identified at the end of the junior year in high school, the possibility of counseling the future GROUP student into a stronger language skills curriculum during his/her senior year is a low cost alternative to increasing the chance of the student persisting once enrolled at I.U.

Another avenue to promote the persistence of these high risk ADs is to provide additional supportive curriculum to these students once they are at I.U.P. It is obvious that this high risk student is deficient in his language skills. A two semester course that is required for the high risk student and elective for other students might consist of the following:

1. Reading speed and comprehension skills: to increase the student's opportunity for exposure to written material,
2. Writing communication skills: to increase ability in expressing oneself in written communications, and
3. Oral communications skills: to increase the ability to clearly express oneself in oral communications.

Without a doubt, the University has a vested commitment and interest in retaining the GROUP students in the

University until they complete their goal of a baccalaureate degree. In this study we have provided data that indicate potential directions that may be selected to increase the persistence of the GROUP students at I.U. The trend is definitely toward higher attrition rates with each subsequent GROUP cohort. Thus some intervention on the part of the University will be necessary to curb this trend and to continue to provide high risk GROUP students a situation that does not result in another academic failure experience.

Appendix A

Numbers of Each GROUP Cohort Who Were ADs, NADs and PERs

by Their Class Rank the Last Semester They Attended[a]

GROUP	Class Rank the Last Semester Attended																		Total
	Special			Freshman			Sophomore			Junior			Senior			Graduate			
	AD	NAD	PER	AD	NAD	PER	AD	NAD	PER	AD	NAD	PER	AD	NAD	PER	AD	NAD	PER	
'69	2	-	-	58	16	-	21	7	-	8	4	1	9	39	3 (1AD)	-	19	5	192
'70	5	-	-	47	10	-	20	15	1 (1AD)	10	11	5	7	51	5	-	11	2	200
'71	2	-	-	31	21	1 (1AD)	22	17	1	6	11	11 (4AD)	10	41	6	-	6	7	193
'72	1	-	-	35	22	2 (1AD)	25	22	4 (2AD)	9	11	6 (1AD)	9	28	18 (3AD)	-	1	3	196
'73	2	-	1 (1AD)	46	23	1	20	12	9 (4AD)	13	9	23 (3AD)	0	4	48 (3AD)				211
'74	3	-	-	61	19	3	44	20	27 (10AD)	-	-	52 (3AD)	-	-	4				233
'75	-	-	3 (3AD)	71	12	21 (8AD)	1	2	145 (27AD)										255
Total	15	-	4 (4AD)	349	123	28 (10AD)	153	95	187 (44AD)	46	46	98 (11AD)	35	163	84 (7AD)	-	37	17	1480

[a]Numbers in parentheses are those included in the PER category who are persisting but in academic difficulty.

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